

We claim:

1. An input device for scanning a biometric image, comprising:
a housing;
a scan head mounted to the housing;
a platen moveably mounted to the housing for movement relative to the housing and the scan head between a first position and a second position; and
a biasing device configured to bias the platen into its first position.
2. The device of claim 1, further comprising an encoder target.
3. The device of claim 2, wherein the scan head is configured to scan a pattern on the encoder target and to capture a scan line of the biometric image and a portion of the pattern on the encoder target.
4. The device of claim 2, where in the scan head is adapted to capture scan lines as the platen is moved.
5. The device of claim 2, wherein the encoder target comprises a repeating pattern.
6. The device of claim 1, wherein the housing is configured to provide a support surface and the platen moves parallel to the support surface.
7. The device of claim 1, wherein the biasing device is an extension spring.
8. The device of claim 1, wherein the platen comprises an external surface configured to provide a contact surface for the biometric image.

9. The device of claim 2, wherein a pattern on the encoder target is used for calibrating a series of scan lines to form an image representative of the biometric image.

10. The device of claim 1, wherein movement of the platen away from the first position activates the scan head.

11. The device of claim 1, wherein the platen comprises a transparent window.

12. The device of claim 1, wherein the platen is translatably moveable relative to the housing.

13. The device of claim 1, wherein the biometric image comprises a fingerprint.

14. The device of claim 3, wherein the platen comprises a transparent window, an upper surface and lower surface, the upper surface configured to provide a contact area for the biometric image, wherein the housing is configured to provide a support surface and the platen moves parallel to the support surface, wherein the scan head is adaptive to capture scan lines as the platen is moved, wherein the biasing device comprises a coiled spring, and wherein a pattern on the encoder target is used for calibrating a series of scan lines to form an image representative of the biometric image, the biometric image comprising a fingerprint.

15. An input device for scanning a biometric image, comprising:
a housing;
a platen moveably mounted to the housing for movement relative to the housing between a first position and a second position;
an encoder target associated with the platen; and
a scan head, the scan head being configured to scan a pattern on the encoder target and to capture a scan line of the biometric image and a portion of the pattern on the encoder target.

16. The device of claim 15, wherein the housing is configured to provide a support surface and the platen moves parallel to the support surface, and the encoder target comprises a non-repeating pattern.

17. The device of claim 15, further comprising a biasing device.

18. The device of claim 15, wherein the platen comprises a transparent window and the encoder target comprises a non-repeating pattern, and the pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

19. The device of claim 15, wherein the encoder target comprises a repeating pattern.

20. The device of claim 15, further comprising:

a start of scan sensor having a first state and a second state, wherein movement of the platen away from the first position changes the state of the start of scan sensor; and

an end of scan sensor having a first state and a second state, wherein contact between the platen and the end of scan sensor changes the state of the end of scan sensor.

21. A method of scanning a biometric image with an input device having a platen and a housing, comprising:

sensing movement of the platen relative to the housing; and

capturing a series of scan lines of the biometric image on the platen and a corresponding pattern of an encoder target as the platen is moved.

22. The method of claim 21, further comprising the step of translating the platen.

23. The method of claim 21, wherein the movement is a horizontal direction.

24. The method of claim 21, wherein the movement is a vertical direction.
25. The method of claim 21, wherein the capturing step is accomplished by a single sensor array.
26. The method of claim 21, further comprising the step of scanning a single fingerprint image.
27. The method of claim 21, further comprising the step of using the pattern on the encoder target to combine the series of scan lines to form an image representative of the biometric image.
28. The method of claim 21, wherein the step of sensing movement of the platen activates a scan head.
29. The method of claim 21, further comprising the step sensing that the scan is complete with an end of scan switch.
30. The method of claim 21, wherein the capturing step is accomplished with a single sensor, further comprising the steps:
- translating the platen;
 - sensing that the scan is complete with an end of scan switch; and
 - using the pattern on the encoder target to combine the series of scan lines to form an image representative of the biometric image.